



UNITED STATES PATENT AND TRADEMARK OFFICE

HD

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/711,631

09/29/2004

Arthur I. Watson

68.0417

5630

35204 7590 04/19/2007
SCHLUMBERGER RESERVOIR COMPLETIONS
14910 AIRLINE ROAD
ROSHARON, TX 77583

EXAMINER

FULLER, ROBERT EDWARD

ART UNIT

PAPER NUMBER

3672

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/711,631	Applicant(s) WATSON ET AL.	
	Examiner Robert E. Fuller	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-20, 22-35 and 37-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11, 13-20 and 22-35 is/are allowed.
- 6) ☒ Claim(s) 37, 38, 40, 41, 44-50 and 52-56 is/are rejected.
- 7) ☒ Claim(s) 39, 42, 43 and 51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Examiner has considered the amendment received December 29, 2006. In view of the changes made to the claims, examiner has withdrawn the objection to claim 22. With regard to the prior art, examiner has withdrawn some of the rejections set forth in the non-final office action dated September 29, 2006, but has maintained others.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 37, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arutunoff in view of Shilman (RU 2162272 C1).

With regard to claims 37 and 38, Arutunoff discloses a motor section (6) having an electrical connection (34), however, Arutunoff fails to disclose the electrical connection comprising a spring biased terminal block.

Shilman discloses an electrical connection having a spring biased terminal block (16). The terminal block is biased towards a sealed position, so that fluid communication is allowed when the plug is inserted, and not allowed when the plug is not inserted (see page 4 of the translation, paragraph 3).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have replaced the electrical connection module of

Art Unit: 3672

Arutunoff with the connection module of Shilman, as Shilman's module would have "ensure[d] equalization of pressure in the cavity with that of the liquid within the well. As a result, the cable entry [would not have been] exposed to differential pressure – a factor that [would have ensured] its reliable sealing and long-term serviceability."

With regard to claim 40, Arutunoff discloses a protector section (8 and 20) connected to the motor section.

4. Claims 41, 45-50, and 52-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Arutunoff (US 2,674,194).

Arutunoff discloses a combined protector and motor system for a downhole pump.

With regard to claim 41, Arutunoff teaches a submersible pump (7) having a journal bearing (67) with a replaceable wear sleeve (68). Arutunoff further teaches a motor section (6) and a motor protector section (8 and 20), which seals the motor section from surrounding fluid and accommodates thermal expansion of an internal lubricating fluid (column 6, lines 39-60). The motor section comprises a motor section shaft (24), and the motor protector section comprises a motor protector section shaft (27), the two shafts being affixed to each other by a spline connection.

With regard to claims 45 and 47, the motor section and the protector section are assembled as a single unit.

With regard to claims 46 and 48-50, Arutunoff discloses bubble sump (40) which contains a dedicated volume (48) which is capable of entrapping released gases and expanding to a volume indicated by the dashed lines in Figure 3. The bubble sump is

Art Unit: 3672

located within the protector section (8 and 20) and comprises a protector bag (43) located below a framework (36 and 38).

With regard to claims 52-56, Arutunoff discloses the method steps recited in these claims. See column 6, lines 9-38.

Claim Rejections - 35 USC § 103

5. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arutunoff.

Arutunoff discloses a journal bearing having a wear sleeve, however, Arutunoff fails to disclose multiple journal bearings each having wear sleeves.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included a plurality of journal bearings, each having wear sleeves, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Allowable Subject Matter

6. Claims 1-11, 13-20, and 22-35 are allowed.

7. Claims 39, 42, 43, and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed December 29, 2006 have been fully considered but they are not persuasive. Applicant has argued that the combination of Arutunoff and

Art Unit: 3672

Shilman does not disclose an *entire* terminal block movable between a sealed position and an open position. Also, applicant has argued that Arutunoff does not disclose a journal bearing having a replaceable wear sleeve because there is space between the alleged wear sleeve and the protector section shaft. Finally, applicant has argued that Arutunoff does not disclose a bubble sump.

Examiner respectfully traverses applicant's arguments. While the *entire* connection receptacle (denoted by reference numeral 8) of Shilman is not movable, claim 37 does not require the "entire" terminal block to be movable. Claim 37 merely requires a movable terminal block, which examiner has identified as item 16 in figure 2 of Shilman. This terminal block selectively enables fluid communication between a connection interface (15) and the interior of the motor section. Therefore, all the limitations of claim 37 are satisfied. With respect to the replaceable wear sleeve, whether the wear sleeve is in constant contact with the shaft is immaterial, so long as the wear sleeve has the potential to come into contact with the shaft at any point in time. Whenever the wear sleeve contacts the shaft, it will experience wear, which qualifies it as a wear sleeve. With respect to the bubble sump, applicant states in the specification (paragraph 43) that "bubbles trapped at rotating components, such as shaft seals and bearings, can cause damage by excluding oil lubrication." It appears from figure 3 of Arutunoff, that any bubbles formed around the rotating shaft (24) would simply move through ports 49 and immediately into the bubble sump (48) as well as chamber (59) and become entrapped there. If bubbles become entrapped in the volume (48) at any time, then volume (48) is a bubble sump.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

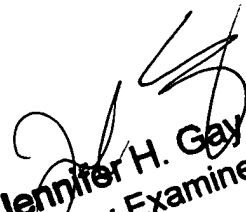
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert E. Fuller whose telephone number is 571-272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM. The examiner is normally out of the office every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

04/13/2007
REF


Jennifer H. Gay
Primary Examiner